

60130-1968
04MRA0070REMARKS

Applicant thanks Examiner for the detailed remarks and analysis. Claims 1, 3-6 and 14-26 are pending, claims 2, 8 and 10-13 have been cancelled, and claims 27-29 added.

Claim 26 was rejected as introducing new matter with the added claim limitation "said valve neck includes a hollow tube". Applicant disagrees; this limitation is properly supported in the description and drawings as filed. The specification includes the description that the valve neck 20 includes a "tubular portion 54". (Specification, paragraph 23). The definition of tubular is a hollow usually cylindrical body. (Please see attached definition). Further, the drawings illustrate that the valve neck 20 is hollow in the several views (Figures 1, 2, 4, and 5A). Accordingly, the specification includes proper support for the hollow limitation, and this rejection should be withdrawn.

Claims 1-9, 14-20, 25 were rejected as being anticipated by Welge (US 2,753,147). Claim 1 has been amended to require a valve neck comprising a hollow tube through which an actuation link extends. Amended claim 14 requires a linear element movable in a direction transverse to the axis of rotation. Welge does not include a valve neck through which an actuation link extends. Welge discloses an actuator supported on a plurality of cylindrical spacers (51), none of which comprise a tube through which an actuation link extends. Further, Welge does not disclose an actuator moving a linearly element transverse to an axis of rotation. Accordingly, claims 1 and 14 include limitation not disclosed or suggested by Welge and Applicant requests withdrawal of this rejection.

Claim 15 depends from claim 14 and requires that a valve neck disposed about an axis of rotation supports and spaces the electric actuator a distance from the exhaust pipe. Welge does not disclose a valve neck disposed about an axis of rotation. Instead, Welge discloses a plurality of cylindrical spacers, none of which are disposed about an axis of rotation. Accordingly, this rejection should be withdrawn.

Claims 21, and 22 were as being obvious over the combination of Welge in view of Stark (US 4,373,330). Claims 21 and 22 depend an allowable base claim and are therefore also in allowable form.

Claim 23, 24, and 26 were rejected as being obvious over Welge and official notice by the Examiner. Claims 23, 24 require the electric actuator to include a first pull coil and a second hold coil. Welge does not suggest a first and second coil. Further, it is not well known in the art that an electric actuator includes a first pull coil and a second hold coil. An electric actuator typically

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includes only a single coil. Further, the use of an electric actuator including a first pull coil and a second hold coil to move an exhaust valve is not well known. Official notice of an actuator including a first pull coil and a second hold coil for use in with an exhaust valve is not proper. Applicant respectfully traverses Examiner's assertion of official notice and requests documentary evidence supporting this rejection. As official notice of an actuator having a first pull coil and a second hold coil is improper, Applicant requests withdrawal of this rejection. Further, claims 23 and 24 depend from allowable base claims and are therefore also allowable.

Claim 26 includes the limitation of a valve neck having a hollow portion. Examiner states that Jacque (RD 385031) discloses the limitations of claim 15. However, Jacque fails to disclose the required valve neck including a hollow portion. Claim 15 requires that the valve neck be disposed about an axis of rotation. Jacque does not disclose a valve neck disposed about an axis of rotation. Instead, Jacque discloses a guide tube (24) that is disposed perpendicular to the axis of rotation (Please see Figure of Jacque). Further, in Jacque, guide tube (24) does not support an electric motor. Instead, Jacque a grommet (28) is placed on an end of the guide tube (24). Further, Examiner state that a valve neck having a hollow portion is merely a matter of design choice. Applicant traverses this rejection as the valve neck provides unique heat shielding features that are not mere changes to an element shape, and requests that Examiner provide evidence supporting this assertion or withdraw the rejection. Further, claim 26 depends from an allowable base claim and is therefore also allowable. For these reasons, the rejection to claim 26 should be withdrawn.

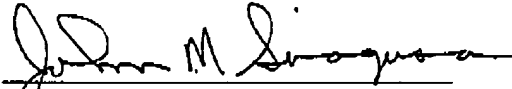
Applicant has included new claims 27-29. Claim 27 requires an electric actuator including a linear element movable linearly transverse to an axis about which a valve plate rotates and a valve neck supporting the electric actuator a distance from the exhaust pipe that comprises a hollow tube through which an actuator link extends. Claim 28 requires that the valve neck define an air space surrounding the actuator link for insulating the electric actuator from heat generated by the exhaust pipe. Claim 29 requires that the valve neck is centered about the axis. The prior art does not disclose or suggest a linear actuator with a linear element that moves transverse to rotation of a valve plate or a hollow actuator tube supporting the electric actuator. Accordingly, claims 27-29 are in allowable form.

Applicant believes that the present application is in condition for allowance, and a Notice to that effect is earnestly solicited. Applicant believes that no additional fees are necessary, however,

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the Commissioner is authorized to charge Deposit Account No. 50-1482 in the name of Carlson, Gaskey & Olds for any additional fees or credit the account for any overpayment.

Respectfully submitted,



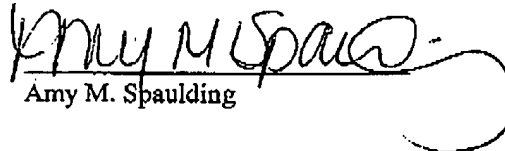
John M. Siragusa No. 46,174
Carlson, Gaskey & Olds
400 W. Maple Road, Ste. 350
Birmingham, MI 48009

Dated: April 1, 2005

(248) 988-8360

CERTIFICATE OF MAILING

I hereby certify that the attached response is being deposited with the U.S. Postal Service as First Class Mailing, postage prepaid, in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on April 1, 2005.


Amy M. Spaulding

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T-SHAPED
1. Insect: 2. Mouth organs
(nearly magnified)

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TUBA

tuba, n. 1. formerly, the act of lining a gun with a cylindrical tube of wrought iron or steel to increase the power by decreasing the caliber.

tuba, n. 2. the insertion of a tube into one of the passages of the body; intubation.

tubal, a. relating to a tube, especially to a Fallopian or Eustachian tube.

tubal, n. a Fallopian tube.

tubal-gasin, n. in the Bible, a worker in brass and iron; Gen. iv. 22.

tubate, a. furnished with or having the shape of a tube; tubular.

tubbing, n. [verbal noun of tub.] 1. the materials from which tubs are made.

tubbing, n. 2. the act of one employed in making tubs.

tubbing, n. 3. the metal or wooden lining of the shaft of a mine, usually cylindrical in form.

tubbing, n. 4. the act or process of bathing or of being bathed in a tub.

tubby, a.; comp. tubbiest; superl. tubbiest, 1. shaped like a tub.

tubby, a. 2. short and fat.

tubby, a. 3. having a dull, wooden sound.

tube, n. [Fr., from L. *tubus*, a pipe.] 1. a hollow cylinder or pipe of metal, glass, rubber, etc., usually long in proportion to its diameter, used for conveying fluids, etc.

tube, n. 2. an enclosed, hollow cylinder of thin, soft metal, fitted at one end with a screw cap and used for holding toothpaste, artist's paints, etc.

tube, n. 3. an instrument, part, organ, etc. resembling a tube; as, a bronchial tube.

tube, n. 4. an electron tube.

tube, n. 5. (a) an underground tunnel for an electric railroad; (b) [Colloq.] the electric railroad itself.

tube, n. 6. a telescope. [Archaic.]

tube, n. 7. in botany, the lower, united part of a gamopetalous corolla or a gamosepalous calyx.

tube, n. 8. in electricity, a tubular space bounded by lines of force or induction; also tube of force, tube of induction.

tube, n. 9. in anatomy, a small part of the upper termination of the Eustachian tube; it is partly open, thus allowing a recoil of air from the tympanum when the membrane of the drum is driven inward suddenly; pressure in the tympanic cavity is thus equalized from the pharynx.

tube, n. 10. a vacuum tube using a fine wire mesh grid or screen to reduce to a minimum the effective capacity between the electrodes.

tube, n. 11. [Fr., from L. *tubus*, a pipe.] 1. to furnish with, place in, or pass through a tube or tubes.

tube, n. 2. to make tubular.

tube, n. 3. same as tubipore.

tube, n. 4. a locomotive process or ambulacral sucker of an echinoderm.

tube, n. 5. same as tubiform.

tube, n. 6. [Fr., from L. *tubus*, a pipe.] 1. a round, broad, open, wooden container, usually formed of staves and hoops fastened around a flat bottom.

tube, n. 2. any similarly large, open container of metal, stone, etc., as for washing.

tube, n. 3. the contents of a tub, or a tub and its contents.

tube, n. 4. a small cask holding about four gallons.

tube, n. 5. (a) a bucket or tram for carrying coal, ore, etc. in a mine; (b) the lining of a mining shaft.

tube, n. 6. a bathtub.

tube, n. 7. a bath in a tub. [Brit. Colloq.]

tube, n. 8. a slow-moving, clumsy ship or boat. [Colloq.]

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